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13. ABSTRACT *(Maximum 200 words)*

THE OBJECT OF THIS RESEARCH IS TO OBTAIN A CONSENSUS OF OPINION FROM A CONVENIENCE SAMPLE OF NURSE EXECUTIVES THAT FORECAST THE CRITICAL ISSUES AND ASSOCIATED SKILLS, KNOWLEDGES, AND ABILITY (SKA) FACING THEM FROM NOW THROUGH THE TWENTY-FIRST CENTURY. USING A METHODOLOGY CALLED THE DELPHI TECHNIQUE, 196 FEDERAL NURSE EXECUTIVES RESPONDED TO TWO ITERATIONS OF A MAIL INQUIRY. NURSE EXECUTIVES IDENTIFIED 201 ISSUES THAT WERE CONTENT ANALYZED INTO 10 DOMAINS BY AN EXPERT PANEL OF SENIOR NURSES. DOMAINS, IN ORDER OF RANKED IMPORTANCE, ARE LEADERSHIP, MANAGED CARE, BUSINESS MANAGEMENT, STAFFING/PERSONNEL MANAGEMENT, TECHNOLOGY, HEALTH CARE TRENDS, QUALITY & RISK MANAGEMENT, LICENSURE & EDUCATION, FEDERAL NURSE SPECIFIC, AND ETHICS. RESULTS INDICATED THAT WHILE THE "PEOPLE-SKILLS" ARE NEEDED FOR EFFECTIVE ORGANIZATIONAL LEADERSHIP, THE NURSE EXECUTIVE OF THE FUTURE MUST POSSESS THE SKAs THAT ALLOW THEM TO BE A VISIONARY, COMPETENT IN STRATEGIC MANAGEMENT, CAPABLE OF MULTIDISCIPLINARY INTERACTION, AND KNOWLEDGEABLE IN FINANCIAL, QUANTITATIVE, AND COMMUNICATIVE SKILLS.

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U.S. ARMY - BAYLOR UNIVERSITY

GRADUATE PROGRAM IN HEALTH CARE ADMINISTRATION

ENVISION 2000: A FORECAST OF THE ISSUES AND ASSOCIATED COMPETENCIES REQUIRED BY FEDERAL NURSE EXECUTIVES INTO THE 21ST CENTURY

A GRADUATE MANAGEMENT PROPOSAL SUBMITTED TO

THE PROGRAM DIRECTOR IN CANDIDACY FOR

THE DEGREE OF MASTER IN HEALTH CARE ADMINISTRATION

BY

CPT RONALD A. DUPERROIR

WILLIAM BEAUMONT ARMY MEDICAL CENTER

EL PASO, TEXAS

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In addition, the entire project would have failed if it were not for the dedicated group of professional nurse executives who participated as respondents in this study. To them I am truly grateful and hope that this research will provide them with a tool for personal success.

Finally, I am indebted to Colonel Jeri I. Graham, Colonel Donna Vandell, and Lieutenant Colonel Wynona M. Bice-Stephens, all executive nurses who not only provided me with expert advice, but also served as validators, editors, and members of the expert panel used in the Delphi process.

EXECUTIVE SUMMARY

Changes occurring in health care demand that nurse executives expand their professional skills, knowledge, and abilities beyond the clinical and behavioral sciences. Subjects absent from traditional nursing education curricula, such as economics, strategic management, and organizational structure and behavior, will become important future competencies, particularly for nurses who serve in executive positions.

This is a Graduate Management Project that focuses on executive nursing competencies of the future. The objectives of the research are two-fold. First, it obtains a consensus of opinion from a convenience sample of nurse executives to forecast the critical issues and associated leadership competencies facing them from now through the twenty-first century. Secondly, it renders an empirical basis regarding the requisite skills, knowledge, and abilities that will be needed for program planning and successful executive performance in tomorrow's health care environment.

To obtain this information, the research used a methodology called the Delphi technique and a panel of subject matter experts. The Delphi technique

is a method used for gathering data that was developed in 1959 at the Rand Corporation (Dalkey, 1969). It is a means of developing the ideas of a knowledgeable group of people by mail survey. The process consists of a series of questionnaires, using a group of subject matter experts or persons representing the particular field of study.

The findings in this research represent a consensual basis regarding the future issues and the associated skills, knowledge, and abilities required of the nurse executive though the year 2000. Because of the continued reductions in resources and the increased emphasis on the management of those resources consumed in the patient treatment process, the response rate clearly reflected a high rating of importance in the areas of managed care, nursing leadership, and business related issues. Technical skills pertaining to the administration of managed care initiatives, the preparation and management of a budget, the use of information and information systems, and the ability to effectively manage people in a turbulent environment, are only a few of the requisite executive skills required of the nurse executive. He or she will need to be a visionary, competent in the area of strategic planning, capable of successfully interacting in a multi-disciplinary environment, and knowledgeable in financial, quantitative, and communicative skills.

By integrating these findings into one's professional skill set, nurses will be rewarded with a solid foundation of executive skills for decision making as they successfully confront and overcome the difficult issues of the future. Thus, this research serves as an early detection process, providing the executive leadership of today a starting point in which to define and enhance the requisite skills required for tomorrow.

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CHAPTER 1

INTRODUCTION

Purpose of Study

Those in the health care industry are well aware that nursing care delivery is in the midst of one of those chaotic and creative times of change . . . forces outside the profession such as increased demand for nursing services, fluctuating payment mechanisms and standards, the ongoing pressure to contain costs, and the management of budgets while preserving quality are partially responsible for the change in nursing aesthetics (Murphy and De Back 1991; Brown 1991). Periods of change in health care demand nurse executives to expand their professional skills, knowledge, and abilities beyond the clinical and behavioral sciences. Subjects absent from the traditional nursing education background, such as financial management, economics, strategic management, and organizational structure and behavior, will become important competencies, particularly for those nurses who serve in executive management positions.

This research reports the results of a study that sought to forecast the future. The objectives of the research are twofold. First, the study will

provide a consensus of opinions from a convenience sample of nurse executives to forecast the critical issues and associated leadership competencies facing them from now through the twenty-first century. And second, it will render an empirical basis regarding the requisite skills, knowledge and abilities that will be needed for program planning and successful executive performance in tomorrow's health care environment.

In parallel with their corporate counterparts, federal health care leaders must be preparing now for a future in which present day challenges will intensify as a result of continued cost escalation, redefinition of quality in terms of cost-value linkages, capitated payments, and continued growth and evolution of contractual arrangements with private sector business partners (Miller 1989; Hudak, Brooke and Finstuen 1994). Hudak, Brooke and Finstuen (1994) report that to adequately prepare health care leaders with the competencies to operate in a future environment, the federal services must maintain ongoing programs of environmental surveillance and internal assessment, and must insure the continued relevance of their leader development programs pertaining to the skills, knowledges, and abilities (SKA) that will be required to effectively and efficiently accomplish the health care mission. Miller (1989) adds that as nurses in both education and

administrative acquire positions of executive levels in large institutional settings, the issue of leadership training and ability becomes paramount.

People are not promoted because they were effective yesterday - - they are promoted because they are to be effective tomorrow (Fralic 1992). Thus, utility of this research, in addition to forecasting and reporting future issues identified by nurse executives before they happen, is only bounded by one's imagination. Effectiveness in a chosen profession will certainly be the prime measure of one's success in the future. Drucker would instruct that we must first start by making ourselves effective (Flower 1991). To accomplish this, the nurse executive can use these results to clarify what it is that constitutes the executive competencies of the nurse executive position.

University leaders can apply the results to their curriculum to attract those nurses interested in pursuing a higher education with a concentration on a particular group of executive level skills. Other applications include the use of future executive competencies to assess continuous quality training programs and in the formulation of job specifications and descriptions. The results can further be applied, by health care executives and human resource managers, as screening criteria in the recruitment and evaluation process.

Unfortunately, technology has not advanced to the point where we can visualize the uncertainty of the future. Tomorrow's nurse executive will

master the art of decisiveness in highly ambiguous environments (Fralic 1992). Therefore, the primary utility of this and similar research is to act as a bridge that will link today with tomorrow, providing the foundation for the executive in the field, and guiding further study in the area of executive skills.

The Nursing Environment: Past - Present

Hospitals have experienced a slow evolution. Religious groups assisted in hostel care, functioning mainly on gifts from wealthy patrons. Gradually their function extended to the sick and homeless. Most care, however, remained in the home so adequate nursing care, food, and shelter could be provided by the family. In the 19th century, nursing came out of the home and into the hospital. Nursing care for patients naturally imitated domestic or "family" patterns. The nursing superintendent and her assistants held all authority over the nurses, who were mostly pupils in the hospital-owned school. Pupils were organized into a hierarchy, with the oldest directing the youngest (Fagin and Lynaugh 1992).

During the 20th century, medical care, and with it hospital and nursing services, underwent rapid change. There was growing acceptance of the concept that medical care encompassed prevention and rehabilitation, as well as the traditional diagnosis of treatment (Rowland and Rowland 1992). Soon,

the tremendous demand for nursing service became far greater than the supply of nurses. As a result, two new groups of nurses appeared, the practical nurse and the nurse's aide. With their arrival they brought another role to professional nursing - the role of teaching and supervising auxiliary personnel.

Today, nurse executives, administrators, and managers are constantly being challenged by changes in the health care environment. Relationships between hospitals and their medical staffs are becoming strained as external forces wreak havoc within our health care systems (Berger and Kurtz 1991). The nurse executive of the nineties and beyond will work assiduously to accomplish two things. First, to acquire and sharpen every skill that will be needed to perform competently in the 1990s; and second, to assure that those who follow will be ready, enthusiastic, and well prepared to face every challenge that the future will present (Decker and Sullivan 1992).

Possessing a proactive vision for the future, in 1986 The American Association of Colleges of Nursing (AACN) and the American Organization of Nurse Executives (AONE) issued a joint position statement indicating that a major responsibility of the nurse executive is to function as a member of executive management teams (AACN, AONE 1986). Fulfilling this responsibility is critical as nurse executives work more closely with all agency departments to provide cost-effective and quality nursing care within

various and often complex health care delivery systems. To be effective, the requisite skills of diplomacy, negotiation, and the use of power-based strategies or alliances are required (Farley and Stoner 1989).

It is a turbulent health care environment, and because of this the role of the nurse executive is rapidly changing in an endeavor to meet the rigorous demands both internally and within the marketplace. Nurse executives must not only maintain current skills, but they must also develop and have those requisite competencies to meet the issues of the future. With the ongoing advent of health care reform, and system reform just over the horizon, the nurse executive must have the competencies to deal with tomorrow's significant challenges. A concern confronting nurse executives is the identification of future issues and those competencies that merit early consideration during this period of uncertainty prevailing over our health care delivery system.

Broski (1979) cites that these competencies can be derived from an assessment of the knowledge, skills, and attitudes required of the professional role. They can be identified from a range of sources such as: taxonomic analysis; a review of the literature; job descriptions and standards of practice; task analysis; input from educators, employers, clients, the profession and special interest groups (Broski et al., 1979; Hall and Jones 1976).

In this research, the requisite competencies associated with the nurse executive will be identified using the Delphi technique. A review of the literature supports the use of the Delphi in forecasting issues in health care.

CHAPTER 2

REVIEW OF THE LITERATURE

The Delphi Forecasting Method

The Delphi Technique was first developed as a forecasting tool at the Rand Corporation (Helmer 1967, Dalkey 1969, Delbecq, Van de Ven and Gustafson 1975). Dr. Olaf Helmer, a mathematician-philosopher and one of the founders of the Institute for the Future, developed the technique as an attempt to deal with very distinct futures by making systematic use of the "intuitive guessimate" of large numbers of experts (Lindeman 1981). The original use for the Delphi was to predict the effects of atomic war on the United States. Since then it has developed into an accepted method of achieving consensus among groups of experts (Helmer, 1967; Pyke and North 1969, and Duffield 1993). For example, the Delphi has been used to obtain the predications concerning the impact of a new land use policy upon population growth, pollution, agriculture, and taxes. Additionally, the Delphi technique is often used in health care settings because the research normally requires the input of experts for the purpose of decision making, establishing

priorities, and predicting future trends (Beddome, Clarke, and Whyte 1993; Duffield 1993; Crotty 1993, and Aluise 1994).

Achieving group consensus on most issues is a difficult undertaking. The more complex or controversial the issue, the more prolonged and involved the decision making process can become. Unlike the typical decision meeting where the close physical proximity of group members is required for decision making, the Delphi technique does not require that respondents meet face-to-face. Instead, the Delphi technique is a method for systematic solicitation and collection of judgments on a particular topic through a set of carefully designed sequential questionnaires interspersed with summarized information and feedback from opinions derived from earlier responses (Delbecq, Van de Ven, and Gustafson 1975). Because the Delphi technique does not require face-to-face contact, it becomes particularly useful for involving experts, resource controllers, or administrators who cannot come together physically (Delbecq, Van de Ven, and Gustafson 1975). Consensus will normally occur because the views of the respondents converge in frequency through a process of informed decision making. Norman C. Dalkey, writes:

> The traditional way of polling individual opinions is by face-to-face discussion. Numerous studies by physiologists in the past have demonstrated some serious difficulties with face-to-

> face interaction. Among the most serious are (1) Influence of dominant individuals; for example, by the person who talks the most. There is little correlation between pressure of speech and knowledge. (2) Noise. By noise is not meant auditory level (although in some face-to-face situations this may be serious enough!) but semantic noise. Much of the "communication" in a discussion has to do with individual and group interests, not with problem solving. This kind of communication, although it may appear problem-oriented, is often irrelevant or biasing. (3) Group pressure for conformity. In experiments at Rand and elsewhere, it has turned out that, after face-to-face discussion, more often than not the group response is less accurate than a simple median of individual estimates without discussion (Dalkey 1969).

Essentially the Delphi technique uses a series of questionnaires to aggregate judgments. The first questionnaire asks the respondents to answer an open-ended broad question. Each subsequent questionnaire is built upon responses to the preceding questionnaire. The process stops when consensus has been approached among participants or when a sufficient information exchange has been made (Delbecq, Van de Ven, and Gustafson 1975). When making forecasted predictions on events for which suitable information does not exist to allow for logical extrapolation, few alternatives are left but to solicit the informed opinion of a group of people who are considered to be the subject matter experts. The Delphi technique proposes that the opinion

gleaned from several experts is superior to the opinion of just one expert. In fact, studies have also demonstrated that the estimation error of a group will be less than the average error of the predictions of individuals (Andersen and Company 1984).

Advantages/Disadvantages of the Delphi Technique

The advantages of the Delphi technique include the ability to gather expert information (input) from a large number of professionals without the expense of travel and the reduced influence of persuasive or influential personalities. When conducting a Delphi survey, the identities of the respondents are not made known to each other. The responses of the participants remain completely anonymous to avoid the possibility of attaching a specific opinion to a particular individual. Any member of the Delphi community can comfortably revise a previous forecast as new evidence is submitted by other respondents. Most importantly, it allows any ideas to be considered on merits with regard for the presumed genius or real imagined status of the originator (Andersen and Company 1984).

The disadvantages include the challenge of sustaining a participant's interest and cooperation throughout the various iterations the study may produce. Oftentimes, the Delphi can go into three and four iterations. Keeping track and obtaining timely responses from professional participants

in a highly mobile world may be a difficult undertaking in research with multiple iterations. Proper identification of the sample population in a Delphi is crucial; for the findings to be accepted, respondents need to be representative of their profession or professional organization, unlikely to be challenged as experts in their field, and have the power to implement the findings should they choose (Delbecq, Van de Ven, and Gustafson 1975; Fink, et al. 1984). Should there be an error in the population identification process, it could seriously effect the reliability of the research. Therefore, to establish the extent that the same results would be obtained from another sample from the same population, a test for internal consistency should be employed.

Recent Research in Health Care using the Delphi Technique

Current professional literature exhibits the positive results obtained through the Delphi technique in forecasting health services-related issues. Delphi forecasts of health care trends, policies, and needs have been reported by such organizations and agencies as The Department of Health, Education, and Welfare (Schoeman and Schwartz 1974), The Association of University Programs in Health Administration (Richie, Tagliareni, and Schmitt 1979), The American Academy of Nursing (1981), The American Medical

Association (Bowman, Katzhoff, and Garrison, et al. 1983), The National League of Nursing (1989), The American College of Healthcare Executives (1991), and The United States Army Medical Department Center and School (Jennings 1993).

Hudak, Brooke, and Finstuen (1994) used a two round Delphi in a survey titled FORECAST 2000: A Prediction of Skills, Knowledge, and Abilities Required by Senior Medical Treatment Facility Leaders into the 21st century. This research was used to report the results from a study conducted among Hospital Commanders and Deputy Commanders for Administration of thirty-seven Army Medical Treatment Facilities (MTFs), who identified the most important issues challenging their institution into the 21st century. Respondents identified 187 health care issues that were divided into nine domains. The domains, ranked by importance were, (1) Cost-finance; (2) Healthcare Delivery; (3) Access to Care; (4) Quality and Risk Management; (5) Technology; (6) Professional Staff Relations; (7) Leadership; (8) Marketing, and (9) Ethics (Hudak, Brooke, and Finstuen 1994). Results of their second Delphi iteration identified the necessary skills, knowledge, and abilities for future leaders. Their findings indicated future leadership will require enhanced financial, quantitative, advanced technical skills, as well as competencies in a broad array of interpersonal and communication skills.

In a previous study, Hudak et al. (1993) designed a Delphi survey to examine the issues of health care administrators through the year 2000. Hudak et al. (1993) asked 50 Fellows of the American College of Healthcare Executives to identify the most important issues in health care administration from now to the year 2000. Each Fellow was further asked to differentiate the job skill, knowledge, and ability requirements necessary for successful management of the previously provided issues.

The Fellows of the American College of Healthcare Executives found that issues confronting future health care administrators, in rank order of importance, were within the areas of (1) Cost-Finance; (2) Leadership Ability; (3) Professional Staff Relations; (4) Healthcare Delivery Concepts; (5) Access to Care; (6) Ethics; (7) Quality and Risk Management; (8) Technology, and (9) Marketing (Hudak et al. 1993). Having identified the major issues in the first Delphi iteration, the Fellows then indicated the degree to which certain job skills, knowledge, and abilities will be necessary to successfully manage those issues. Among the executive skills judged by respondents as most important to manage these future issues, 64% were associated with the domains of leadership and professional staff relationships, and included such specific skills as communication, human relations, strategic vision, physician motivation, and conflict management, as well as knowledge

of hospital finance and cost accounting (Hudak et al. 1993). Hudak et al. (1993) concluded that while a business orientation is needed for organizational survival, an equal emphasis on person-oriented skills, knowledge, and abilities are required.

In July, 1993, the United States Army Medical Department Center and School released a three round Delphi research project that identified the United States Army Nurse Corps' future research priorities (Jennings, et al. 1993). Round I was used to derive nursing research questions that were pertinent to the entire Army health care system. Respondents submitted 1,156 individual questions that were collapsed into forty study questions and later used in Rounds II and III of the Delphi process.

In Round II of the study, the respondents rated the importance of each question using a seven-point, bi-polar, Likert scale and completed a demographic survey. In the third round of the study, respondents reconsidered their Round II responses for each question in relation to the questions' interquartile range derived for the total sample (Jennings et al. 1993). Jennings et al. (1993) reported that the priority reflected in Round III data represented a consensus of the sample regarding the importance of each question. She concluded that their findings provided an empirical basis for

critical decision-making regarding which research questions needed to be studied and what priority the research was to be given in terms of funding.

Christine Duffield, R.N., Ph.D. (1993) published research using the Delphi technique that described a study in which two panels of experts (registered nurses) were asked to identify the competencies associated with first-line nurse managers. Structuring a questionnaire that contained competencies from the literature, experts were asked to rate each competency using a 5-point Likert scale. A total of 156 of the identified 168 competencies (93%) presented to the two expert panels were either retained or rejected by both.

The second iteration of this research produced the following competencies in descending order: (1) Needs analysis; (2) Setting fiscal priorities; (3) Financial forecasting; (4)(5)(6) Preparing, Controlling, and Monitoring a unit budget; (7) Using budget data to make decisions; (8) Understanding utilization statistics; (9) Relating utilization statistics to the budget and (10) Cost-control measures.

In a Delphi forecast entitled "Nursing 2020: Expanding Opportunities and Expectations", conducted by the National League for Nursing (1989), America's top nurses were surveyed to predict major issues affecting the future of nursing. Although the report did not include the skills, knowledge

and abilities required to accommodate the identified trends, overwhelmingly, the report cited the expanded role of nursing within the health care delivery system. Their research (Hospital Strategy Report 1989) stated:

- Hospitals will become high-technology intensive care units
- Most routine health needs will be met by ambulatory care and ambulatory surgery
- Many older Americans with chronic illness will receive home care
- Occupational health practitioners and wellness educators will be accepted nursing specialties
- There will be a strong need for nurses to train patients in self-care and families in care giving
- Euthanasia will become accepted and legalized
- Shifts in technology and settings will result in greater nursing specialization
- Nursing practice will be more independent, with nurses having greater authority and control
- Nurses will have more public and community contact
- Many new titles and license designations will be needed for the proliferating nurse specialist
- Cost containment will mean tight budgets and shrinking margins for all health care providers
- There will be higher levels of complexity and acuity for hospitalized patients

- There will be greater use of home care and non-hospital alternatives
- Roles and opportunities for women in the economy will change
- Wellness, health promotion, and occupational health for a healthier work force and society will be accepted
- There will be more autonomy and power for nurses in hospital hierarchies, and
- A declining number of students will enter nursing

Some of these predictions hold true today as organizations experience the downsizing of traditional acute care settings and the creation of ambulatory and home care entities as part of a managed health care system.

In a study conducted by Arthur Andersen and Company, and the American College of Health Care Executives, the professional society for health care executives, the Delphi technique was employed to obtain a consensus of health care experts concerning the future direction of the health care system (Andersen 1984). By surveying 1,000 experts throughout the health care industry, researchers at that time believed the results of their study, for the first time, provided a comprehensive assessment of the trends and strategies reshaping health care in America.

In relationship to this research, Andersen & Company (1984) reported a shift required in CEO skills. Using the Delphi technique and an expert

panel, they forecasted in 1984, that in 1995 the top priority ranked skills of a CEO would be (1) strategic planning; (2) medical staff relations; (3) financial planning; (4) interpersonal skills; and (5) governing board relations (Andersen and Company 1984). The accuracy of the Delphi methodology used in Andersen and Company's research is quite impressive when examined against the research conducted by Hudak, Brooke, and Finstuen 1994, and Dufffield 1993, who reported that leadership, professional staff relationships, communication, human relations, strategic vision, and knowledge of hospital finance and cost accounting as issues for health care executives to the year 2000.

Although much has been done in the area of forecasting issues and competencies in health care professions, there seems to be some confusion and lack of an empirical assessment of the future issues and requisite executive skills required of the nurse executive. Further evidence in the literature indicates a varied response to the appropriate educational requirement of the nurse executive. According to Stanford (1994) one school of thought is that the nurse executive receive specialized administrative education in the school of nursing; another is that a generalist management degree, when combined with a BSN and nursing experience, gives an appropriate nursing back ground. Stanford (1994) also reported that a

growing number of universities are attempting to meld these ideas with the creation of a hybrid graduate degree, the MSN/MBA, that would typically be planned and controlled by the school of nursing.

A study conducted in Florida investigated the educational preparation, expertise, and competencies of the nurse executive (Sorrentino 1992). The study asked chief executive officers for the ideal educational background for the nurse executive; 33.3% preferred the MSN, 40% the MHA, and 25.9% felt the MBA was a requisite degree of choice (Sorrentino 1992). CEOs expressed the need for their nurse executives to be articulate in financial language as well as nursing. Areas identified by the CEOs as weak included leadership, accounting, finance, strategic planning, change process, budgeting, and resource allocation.

In summary, in a rapidly changing health care delivery system, the paradigm shifts will surely affect how nurse executives are educated in the skills, knowledge, and abilities required in the management and delivery of health care. This will not only influence future staffing requirements in terms of numbers, but will dictate the requirement for increased executive skills at all levels of nursing. With the requirement for increased expertise will come the demand for superb organizational and executive skills toward orchestrating the efficient use and smooth integration of medical assets into

health care systems. Nurse executives who have learned to cultivate self-awareness about their capacity to cope with change and crisis will be the ones who continue to accomplish goals in the face of turbulent times; those who approach the future with the ability to be balanced, directed, flexible, and visionary will be able to build the bridge to the twenty-first century (Ross 1992).

CHAPTER 3

PROCEDURES AND RESEARCH METHODOLOGY

Sampling: Selection of Participants

The identification process of the sample population for this study was based on an earlier recommendation (Delbecq et al. 1975; Fink et al. 1984). One hundred and ninety-six federal nurse executives within the Department of Defense's TRICARE Region VII, the Southwest Federal Healthcare Consortium, the Southwest Health Service Support Area, and the Naval Hospital, Camp Pendelton, were identified as respondents. Of the 196 initial Delphi questionnaires forwarded, nine were returned by the postal system as unable to deliver. This left a possible response rate of 187.

The 187 prospective federal nurse executives included senior nurses serving in the Army, Air Force, Navy, Veteran's Administration, Indian Health Service, Immigration and Naturalization Service, and the Bureau of Prisons. Combined, the sample of executive nurses represented 38 separate facilities located in Southern California, Arizona, Nevada, New Mexico, and Southwestern Texas. Respondents were chosen because of their vast and diverse executive experience and their demonstrated desire to increase the

quality of health care. Janne Dunham (1990) validates the expertise of these nurses as subject matter experts because they are at the top of their facility's organizational charts and set the tone for the departments under their control. Dunham profiles this type of individual nurse executive as a key participant in the formulation of the organizational planning and thus, plays a critical role in determining decisions for hospital departments.

Ethical Considerations

Although this research has pin-pointed the names associated with the positions of nurse executives that received a questionnaire, participation in this study remained strictly voluntary. Questionnaires were distributed and collected in a manner that allowed guaranteed anonymity. All necessary administrate requirements and procedures associated with informed consent were met. Furthermore, this research project was presented, reviewed, and approved as an official protocol by the Institutional Review Board and the Department of Clinical Investigation, William Beaumont Army Medical Center, El Paso, Texas.

Theoretical Framework

The researcher is the central focal point for the preparation, distribution, and consolidation of data (figure 1). **[INSERT FIGURE ONE]** The theoretical framework depicts the Delphi process utilized in this research. Initially, the researcher forwards the Round I questionnaire to a sample pool of expert potential participants. If the participants choose to become respondents, they complete and return the Round I questionnaire to the researcher. The researcher consolidates the data (issues) into key phrases and presents this information to a panel of subject matter experts consisting of three to five individuals in the field of nursing. Based on their review, modification, and approval, key phrases are placed into domains and a second questionnaire is constructed, validated, and mailed to the participants. In the second Delphi iteration, the participants are asked to rank order the skills, knowledge, and abilities that are associated with the previously identified issues. Completing a Likert, bi-polar, scaled questionnaire, respondents base their decisions on what they believe are the most important SKAs to their profession in the future. The Round II questionnaire is returned to the researcher who again consolidates and analyzes the data. Feedback to the population is given in two ways: first, each identified person in the sample population is given a copy of the results, regardless if they participated or not.

Secondly, the research is documented and sent to the entire nurse executive population from which the participants were originally drawn from, via submission for publication to a professional journal specializing in issues pertinent to nurse executives.

Mail Outs: Considerations Employed

Building sufficient rapport to influence the response rate to a questionnaire is achieved through an explanatory or cover letter (Dillman 1978). Therefore, the Round I questionnaire, Round I follow up, and the Round II questionnaire were forwarded with cover letters. Each letter emphasized that the success of the study depended on their expert input, and conveyed the potential usefulness of the project. To show organizational support and professional credibility to the project, the initial cover letter announcing Envision 2000 was personally signed by and forwarded to each individual under the signature of Colonel Jeri I. Graham, Chief Nurse, William Beaumont Army Medical Center and Chairperson of the expert panel. The letter introduced the researcher and thereby allowed all subsequent letters to be signed by the researcher. In addition to the forwarding letter, the initial mail out included the Round I questionnaire, an

information sheet for prospective respondents, and one self-addressed stamped envelope (Appendix A).

Two sizes of envelopes were used in the three mail outs; a large one for the outgoing Delphi questionnaire and information papers, and a smaller self-addressed, pre-stamped one for returning the questionnaire. All correspondence used in the research was forwarded to the respondent via first class mail to communicate the project's importance to the respondent and to guarantee that misaddressed envelopes would be forwarded or returned. Postage stamps, rather than mechanically affixed postage, were used to project that the research was important enough to warrant the time required to affix stamps and to capitalize on the assumption that stamps symbolize sincerity (Baker 1985).

Rounds I and II - The Delphi Questionnaire

A convenience sample of senior nurse executives was identified to participate in two rounds of a Delhi group exercise. In the initial round of the forecasting, each Delphi respondent was asked to identify up to five major issues that will be of greatest importance in the field of executive nursing from now into the 21st century (Appendix A). In addition to identifying the major issues, potential respondents were asked to list the job skills,

knowledge, and abilities required that would be essential to meet the needs created by those major issues.

Issues, together with associated skills, knowledge, and abilities identified by the Delphi participants, were entered into a windows based word processing program. The "main content" of each identified nurse executive issue submitted was then assigned to a key phrase. Phrases were presorted into logically derived domains by major topic of content. This list was then used by the expert panel as a starting point to examine and modify the list and titles of domains. After the number and title of domains were agreed upon, the expert panel discussed individual issues and made modifications until all members achieved a consensus as to the placement of all phrases. Though some phrases could be placed into more than one domain, members of the panel were asked to limit the duplication of key phrase placement into no more than two domains for any one phrase.

Once Round I responses were consolidated and grouped into domains, the results were sent back to the Delphi respondents in two formats. First, the data obtained was prioritized by frequency and reported back to all respondents as feedback. And second, the analyzed data was formatted into a structured numerical questionnaire for use in the second iteration of the Delphi. The questionnaire (Appendix B), broken out by domain, lists the

skills, knowledge, and abilities of the issues identified during Round I. Using a 7-point, Likert, bi-polar scale, ranging from "Unimportant" to "Extremely Important", the respondents were asked to rate each skill, knowledge, and ability in terms of which competencies they believed a nurse executive should possess.

To obtain and evaluate the experience of the sample population, a small demographic survey was included in Round II of the Delphi. Obtaining and aggregating variables pertaining to age, current position, past positions, and personal affiliation with professional organizations, assisted in validating the expertise of the sample population.

CHAPTER 4

RESULTS OF DATA ANALYSIS AND DISCUSSION OF FINDINGS

Round I: Analysis of Forecasted Trends

Each round of the Delphi took approximately five weeks to complete. In the first iteration of the Delphi, 43% (80) of the nurse executives responded, supplying 395 issues. This was a response rate considered acceptable for this type of methodology due to the expertise of the participating population (Richie, Tagliareni, and Schmitt 1979).

Fifteen days following the initial mailing, a follow-up letter was sent. Because each of the questionnaires were anonymous to the researcher, there was no mechanism to identify who had, and who had not, already responded. Therefore, the entire population received the follow-up letter. The letter thanked those who had already participated, and encouraged those others who had not participated to do so at the soonest opportunity (Appendix C). To measure the effect a follow-up letter would have the Round I questionnaire, attached to the follow-up letter, was printed on colored paper. Therefore, all responses received that were printed on colored paper were contributed to the to the use of the follow-up letter. The bottom of the

stacked histogram in Figure 2 illustrates the response rate by federal affiliation obtained from the initial invitation for participation into the research project. **[INSERT FIGURE TWO]** The upper portion of the histogram depicts the increase resulting from the use of a follow-up letter. For this project, a 23% increase in response was experienced; it can also be interpreted that 40% of the total response rate can be contributed to the effective use of a follow-up letter.

Responding nurse executives identified 395 future issues by frequency, together with 151 corresponding skills, knowledge, and abilities required to deal with such topics. Reproducing an analysis procedure conducted by Hudak, Brooke, and Finstuen (1993), the executive panel used key phrases for unique issues to reduce the number of issues to 201 key phrases with a varying number of frequencies for each issue. Patterning the analysis procedure after a separate successful study helped to ensure construct validity.

The expert panel consisted of three senior nurse executives assigned to William Beaumont Army Medical Center. On average, a panel member was 49 years old, female, had been in the nursing profession a total of 28 years, and possessed 10.5 years of executive nursing experience. Collectively the panel held three bachelors degrees, two Masters of Science in Nursing, a

Masters in Maternal-Child Health Nursing, a Masters of Art in Education, a Specialist in Higher Education Degree, and a Doctorate in Human Resource Development. Additionally, the panel held memberships and/or certifications in the American Nurses' Association, the Association of Nurse Executives, the American College of Healthcare Executives, the Texas Organization of Nurse Executives, American College of Nurse Midwives, and the Association of Military Surgeons of the United States.

After the expert panelists examined, modified, and determined titles for the domains, they were asked to rate "their satisfaction" with "their accuracy" as an expert panel. Using a 7-point rating scale, the respondents replied to the question "how satisfied were you with the accuracy provided by the expert panel?" The rating given was 6.5, indicating overall group satisfaction with the process and decisions pertaining to issue placement within key phrases and domains.

Once identified, the ten domains were then rank ordered for importance by the frequency of identified issues. The domains, depicted in table 1 in descending order of future importance, and illustrated in figure 2, became: (1) leadership issues; (2) managed care issues; (3) business management issues; (4) staffing, personnel, and productivity issues; (5) technology issues; (6) healthcare trend and reform issues; quality and risk management

issues; (7) licensure and education issues; (9) federal nursing specific issues, and (10) ethical issues. **[INSERT TABLE ONE]**

Table 2 shows the top issues of each domain reported by frequency by respondents of Round I. The nurse executive issues provided by the sample population were used to operationally define particular domains for respondents during the second round of decision making. **[INSERT TABLE TWO]** Based on the data provided and illustrated in Table 2, it is clear that nurse executives in the field predict that nursing will play a bigger role in managing the health care assets that go into the process of patient care. Also of interest, executives identified their awareness of a changing environment and the need for financial and strategic planning in an environment where fiscal constraints dictate how departments of nursing will conduct business in the future.

Perhaps it is the two domains, managed care and business management, that led nurse executives to first identify the need for redefining the role of nursing in the 21st century, and second, the need to examine the effect those role changes will have on nursing itself as an issue.

Round II: Analysis of Content

Analysis of Returns

Regardless of whether an individual participated in the first Delphi iteration, each of the 187 individuals who were sent the Round I materials were also sent the Round II questionnaire and a small demographic survey (Appendix B). To maximize the response rate and minimize the postal expense, a follow-up postcard was sent to all potential participants. Of the 187 mailed questionnaires, five were returned by the postal system as unable to deliver. This resulted in a Round II response rate of 36% (66). Again, this was a response rate quite acceptable for this type of data collection (Richie, Tagliareni, and Schmitt 1979). Of the overall rate of return based on Round I, 83% (66) of the nurses executives rated the 151 SKAs pertaining to the issues previously identified in Round I.

Demographics

Of the 66 respondents, 78% (52) were female. Ages ranged over a span of 30 years. Respondents reported ages from a low of 35 years old to a high of 65 years old, with mean and median age being 44.39 and 44 respectfully. The majority of the responding nurses held the position of Branch Chief (30%). This was closely followed by the position of

Department or Director of Nursing (28%). One hundred percent of the participants reported having completed a Bachelors Degree in Nursing (BSN), 58% held a Masters Degree in Nursing (MSN), 18% held a Masters in Business Administration (MBA) or a Masters in Health Care Administration (MHA), 2% a Masters in Public Health (MPH), and one individual reported completing a doctorate in a field other than nursing.

All federal nurse affiliations were represented in the study. Seventeen percent of the responses came from other than Department of Defense nurses. Of those Department of Defense nurses responding (83%), 42% held the rank of Lieutenant Colonel/Commander, 29% the rank of Major/Lieutenant Commander, followed by 11% possessing the rank of Colonel/Captain. The typical nurse respondent represented either the state of Arizona or California, and was employed in either a medical center or community hospital with an average bed capacity of 140 (standard deviation 139).

Reliability

Any research based on measurement must be concerned with the reliability. No validity coefficient and no factor analysis can be interpreted without some appropriate estimate of the magnitude of the error of measurement (Cronbach 1951). To establish the extent to which the same

results would be obtained from another region of nurse executives, a test for internal consistency using Cronbach's coefficient alpha was employed. Ratings of the skills, knowledge, and abilities were examined for the degree of overall agreement (inter-rater reliability with Cronbach's coefficient alpha). **[INSERT TABLE THREE]** Overall reliability indices ranged from a low of .85 for Licensure and Educational issues to a high of .95 for business management related issues. This application confirmed that the obtained ratings of SKAs were internally consistent within the regional group of subject matter experts and that average values computed for SKAs with specific domains categories were stable and agreed upon to a high degree by the executive raters.

Validity

Content validity was addressed through the thorough examination of the questionnaires and assessing the agreement of the expert panel of senior nurses as to the appropriate classification of domains. The expert panel did not participate as respondents in the research. They did, however, conduct a personal review of both Delphi questionnaires to ensure that question items were unambiguous and had face validity. They further verified that the instructions were clear and easily understood. Construct validity was

achieved by patterning the data gathering method and analysis after other successful studies found during the literature review.

Round II: Analysis of Job Requirement Trends

Table 4 illustrates the average mean score and standard deviation for the highest rated skills, knowledge, and ability within each domain. **[INSERT TABLE FOUR]** As depicted, nurse executives identified the major issues they felt would be of greatest future importance. Not surprising, nurse executives noted that it is essential that nursing leadership possess the "people skills". Interpersonal relationship type skills surfaced in almost all of the domains. Skills and abilities pertaining to diplomacy, tact and patience, creditability, sensitivity to change, and the ability to communicate with others through reading, writing, and listening were all scored highly by the nurse executives. Joseph S. Nye (1990), a consultant on leadership, describes the future (of leadership) lies with the non-coercive forms of authority, an area where Americans have a special advantage. He confirms that this "soft" or "co-optive" power allows the ability of one individual to induce others to define their own interests in ways consistent with his or her own. The nurse executives are consistent with this theory and the findings reported by Hudak, Brooke and Finstuen (1993) of the health care administrators who reported

future skills as communication, human relations, strategic vision, knowledge of hospital finance, and cost accounting as being the most important future skills

In a separate analysis, Table 5 reflects the top 10 highest average mean scores when all ten domains are aggregated. **[INSERT TABLE FIVE]** The top 10 skills, knowledge, and abilities all had mean scores over 6.00 and standard deviations less than 1. Interestingly, what surfaced again with the highest rating on a scale of 1 through 7 (1 = unimportant, 7 = extremely important) were skills that allow leadership to effectively deal with people and change in the organizational delivery of health care. It is worth noting that nurse executives identified leadership skills over managerial skills. Where "management" is defined as one that deploys things and crunches numbers, "leadership" aligns people, and gets varied individual humans involved in some common cause (Wright 1990). Underlining the people oriented skills, are those abilities that allow nurses of all specialties to work credibly with a multi-disciplinary group of professionals. The executive nurses pointed out with a mean score of 6.53, that knowledge in case management and utilization review have no clinical or administrative boundaries; they are a responsibility of all those in the nursing profession.

Conversely, Table 6 displays the descriptive statistics of the bottom 10 lowest rated skills, knowledge, and abilities by the executive nurses. **[INSERT TABLE SIX]** It should be noted, that all skills, knowledge, and abilities received scores less than 5.00, and the calculated standard deviations resulted in scores ranging from 1.25 to 1.86, which indicates that there was less agreement among the nurse executives on these particular skill, knowledge, and abilities. The results of this analysis indicate at the present time, their is no singular or particular educational pathway (i.e. clinical vs. administrative) for building a foundation that is requisite prior to assuming the role of nurse executive. Of the 151 skills, knowledge, and abilities to be rated, there were six that pertained to the knowledge obtained from some form of an advanced degree or certification producing program. The nurse executives' rating of these six skills, knowledge, and abilities placed them as the least important of all skills, knowledge, and abilities. This can be interpreted two ways: (1) that the nurse executives rejected the importance of future executives needing a degree in health care administration, public health, an advanced clinical degree, or (2) that the future role of the nurse executive remains unclear and, therefore, specific degreed programs in higher education for the specific function of training nurse executives have not yet been clearly defined and/or received widespread acceptance by the

profession. Thus, it may lead to some confusion as to what curriculum of study one needs to possess as a requisite to becoming an chief nurse executive in the purest sense of the term.

CHAPTER 6

CONCLUSION

This research represents a consensual basis regarding the future issues and the associated skills, knowledge, and abilities required of the nurse executive though the year 2000. The data obtained provides an empirical basis for identifying, in advance, what will most likely be the challenges of future nurse executives and the issues they will be confronted with that will require them to expand their competency base into a board spectrum of skills.

Because of the continued reductions in resources and the increased emphasis on the management of those resources consumed in the patient treatment process, the response rate clearly reflected a high rating of importance in the areas of managed care, nursing leadership, and business management issues. Executive nursing skills built on a sound clinical foundation will assist the future nurse executive to expand and hone their skills in areas pertaining to the administration of managed care initiatives, the preparation and management of a budget, the use of information and information systems, and the ability to effectively manage people in a

turbulent environment. Rather than an institutional caretaker, the nurse will need to be a visionary, a cultivator of innovation, competent in the area of strategic planning, capable of successfully interacting in a multi-disciplinary environment, and knowledgeable in financial, quantitative, and communicative skills. As such, there will be a strong need for financial, managerial, and behavioral competencies to be incorporated into the professional development of potential executive nurses. Because advanced degrees were not highly rated as a skill, knowledge, or ability these topics need to be introduced into the undergraduate curriculum and in programs of continuing education.

By no means do the results of this research suggest that other issues and SKAs identified by the group of nurse executives, particularly those that pertain to the clinical practice or public health aspect of nursing, have no relevance in the future. It may simply mean that the clinical and public health issues were too specific in scope, therefore, limiting their applicability to the nurse executive role. Nevertheless, by integrating these findings into ones professional skill set, nurses will be rewarded with a solid foundation of executive skills for decision making as they successfully confront and overcome the difficult issues of the future. The best advice for a leader who wishes to make a difference is to devote time and thought to the constant

tuning of his or her professional skills. "The road may be uncertain at times, but if you possess and retain the belief that you can make a difference, you will vastly improve your chances of achieving all your personal and professional objectives (Ross 1991)." Thus, this research employed an early detection process that provides the executive leadership of today a starting point in which to define and refine the technical skills, knowledge, and abilities required of tomorrow.

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APPENDIX A

Round I (Delphi Mailing Package)

Forwarding Cover Letter
Information Sheet for Prospective Panelist
Round I Delphi Questionnaire

DEPARTMENT OF THE ARMY
WILLIAM BEAUMONT ARMY MEDICAL CENTER
EL PASO, TEXAS 79920-5001

January 31, 1995

REPLY TO
ATTENTION OF:

Administrative Resident

«Title» «FirstName» «LastName»
«Company»
«Address1»
«City», «State» «PostalCode»

Dear «Title» «LastName»:

I would appreciate your taking a few minutes to read the enclosed materiel and consider participating in this worthwhile Delphi study. This research, entitled "ENVISION 2000," will seek to identify the most critical issues and differentiate the job skill, knowledge, and ability requirements facing federal nurse executives to the turn of this century.

You were selected to participate in this study because of your recognized leadership and contributions to executive nursing. The importance of this study cannot be overstated since it will help to identify the critical issues of the future and will enable institutions of higher education to educate our future nurse executives in the requisite skills. The research results, of course, will be shared with all of our federal colleagues throughout health care region VII.

Please read enclosure 1 which discusses the objectives of the study. The second enclosure is the actual Delphi instrument. Please note that this is not a survey, but an effective means of assessing the judgment of a group of experts. Of course, your responses will be absolutely confidential. At no time will individual respondents be identified.

I appreciate your assistance and thank you in advance for your election to participate in this very worthwhile project. For your convenience I have provided a postage paid, return-addressed envelope. Should you prefer to fax your response, you may do so by dialing (915) 569-1727 or DSN 979-1727 at the attention of Captain Duperroir. If there are questions or need for clarification on any part of "Envision 2000," please call Captain Duperroir at DSN 9-779-1670 or commercial (915) 569-1670.

Sincerely,

Jeri I. Graham
Colonel, Army Nurse Corps
Chief Department of Nursing

Enclosures

An Information Paper for Delphi Panelists

BACKGROUND INFORMATION

The role of the nurse executive is rapidly changing to meet the ever-growing demands of today's society. Skyrocketing costs, technological advances, an aging population and issues of access continue to impact on all aspects of the health care industry. In this evolving and highly uncertain environment, nurse executives must not only maintain current skills, but also develop new skills that will be required to meet issues of the future.

OBJECTIVES

ENVISION 2000 is a project being conducted by CPT Ronald A. Duperroir, an Administrative Resident from the U.S. Army Baylor Univeristy, Graduate Program in Health Care Administration, to identify major future nurse executive issues to the year 2000. The project will further expound on anticipated skill, knowledge, and ability requirements that you, as professional experts in this field, expect will be needed to successfully operate in a complex and fluid environment.

EXPERT RESPONDENTS

Federal nurse executives within the Department of Defense's TRICARE Region VII, the Southwest Federal Healthcare Consortium, and the Southwest Health Services Support Area were selected as respondents. This regional group of federal nurse executives includes nurses serving in the Army, Air Force, Navy, Veteran's Affairs, Indian Health Service, Immigration and Naturalization Service and the Bureau of Prisons. Combined, the sample of organizations represents 38 separate facilities located in Southern California, Arizona, Nevada, New Mexico and Southwestern Texas. Respondents were chosen because of their vast and diverse executive experience and their demonstrated desire to provide the quality of health care

METHODS

THIS IS NOT A SURVEY. The technique being employed is known as the Delphi Method. The Delphi was initially developed by the Rand Corporation and is a means of eliciting and gaining expert group judgments. Panelists are not required to travel; nor is advanced reading required. It has three hallmark features: 1) all responses are anonymous and expert opinions are obtained by questionnaire; 2) interaction among panelists is accomplished at each round by synthesizing all responses, informing each panelist of the group's current position and redistributing the questionnaire results for further consideration; and 3) the group generally achieves a consensus after a few rounds.

HOW LONG WILL IT TAKE

It is estimated it will take forty-five minutes to one hour total time, over a five to six month period to respond to two questionnaires. The first will request one or two sentence answers to specific questions as well as suggestions for additional questions. In the subsequent questionnaire, the format will change to numerical responses, such as rating or ranking items, and hence should require less time than the first. At each round we hope to receive your responses within a week to remain on schedule.

PERSONAL UTILITY OF RESULTS?

By participation in ENVISION 2000, each expert will play a part in the determination of current new directions in the area of executive nursing to the year 2000. We believe that you will find it interesting to respond to your own and other executives' ideas in the project. We will send each participant a summary report of the Delphi results upon completion of the project.

WHAT WILL THE RESULTS BE USED FOR?

Compiled results from ENVISION 2000 can be used in several ways. First, they can be incorporated into the strategic plan of the region and of institutions of higher education as they plan future curriculum/nursing development programs. Next, using our region as a pilot research project allows us to go still further into the examination of issues and competencies at the national level . . . both studies offer unbounded possibilities. Finally, we would like to publish the outcomes in a professional journal that is circulated amongst nurse executives to assist them in thinking in futuristic terms that will meet the challenges of the nursing in the year 2000 and beyond.

FOR FURTHER INFORMATION CONTACT:

CPT Ronald A. Duperroir, MS, Administrative Resident, U.S. Army-Baylor University Graduate Program in Health Care Administration, William Beaumont Army Medical Center, El Paso Texas, 79920-5001. Phone: (915) 569-1670; DSN: 979-1670; FAX (915) 569-1727, DSN 979-1727.

Kenn Finstuen Ph.D., Facility Advisor and Associate Professor, U.S. Army-Baylor University Graduate Program in Health Care Administration, 3151 Scott Road, Fort Sam Houston, Texas 79234. Phone (210) 221-6342, DSN: 471-6343.

"ENVISION 2000" Questionnaire

Please complete and return this questionnaire in the accompanying self-addressed envelope *TODAY!*

INSTRUCTIONS: Specifically, list what you consider to be the TOP FIVE issues that nurse executives will encounter in the next ten years. Define the problems or issues as clearly as possible (in more than categorical terms). An Example of the kind of issue we are seeking might be: "Management of vendor contracts".

Next, for each of the identified issues, list what you consider to be the requisite skills, knowledges, or abilities that will be needed to deal with each of the executive nursing issue. To follow the previous example; the skills, knowledges or abilities to meet this need may include emphasis on negotiating, interpersonal relations, communicating, computing, forecasting, or cost analysis.

Thank you for your time and cooperation.

TOP FIVE NURSE EXECUTIVE ISSUES	**SKILLS, KNOWLEDGES, OR ABILITIES**
1.	
2.	

TOP FIVE NURSE EXECUTIVE ISSUES	SKILLS, KNOWLEDGES, OR ABILITIES
3.	
4.	
5.	

ADDITIONAL COMMENTS:

APPENDIX B

Round II (Delphi Mailing Package)

Forwarding Cover Letter
Envision 2000 - Results from Round I
Round II Delphi Questionnaire

DEPARTMENT OF THE ARMY
WILLIAM BEAUMONT ARMY MEDICAL CENTER
EL PASO, TEXAS 79920-5001

March 27, 1995

REPLY TO
ATTENTION OF:

Administrative Resident

«Title» «FirstName» «LastName»
«Company»
«Address1»
«City», «State» «PostalCode»

Dear «Title» «LastName»:

Enclosed are the first round results of the Delhi study entitled, "ENVISION 2000". As you may recall, this research seeks to identify the most critical issues and differentiate the job skill, knowledge, and ability requirements facing federal nurse executives through the turn of the century.

As promised, I intend to provide as much feedback as possible. Accordingly, I think that Enclosure 1 will be of interest to you since it provides the first round's detailed responses from all the participants. I am very appreciative for the prompt and thorough responses that led to a 43% return rate; a rate that is very reasonable given the type of research methodology used.

Regardless of whether you responded to the first questionnaire, I now request that you take a few minutes to complete and return the questionnaire at Enclosure 2. Although the questionnaire is longer than the first one, you will be able to complete it more quickly because the format only requests numerical responses. I would appreciate you returning the questionnaire within a week from receipt. A self-addressed stamped envelope is included for your convenience.

It was brought to my attention on a returned questionnaire that I had erred in the description of the "Expert Respondents". It seems I failed to include the professionals located at the Naval Hospital, Camp Pendleton who are not part of the Southwest region, but are participating in the research. Please accept my sincere apology. Should anyone have *any* comments, recommendations or questions on any part of "Envision 2000," please call me at DSN 979-1670 or commercial (915) 569-1670/2744. Again, I am pleased to say that the study is proceeding according to schedule. I attribute this primarily to your assistance and responsiveness. Thank you again.

Sincerely,

Ronald A. Duperroir
Captain, Medical Service Corps
Project Officer, U.S. Army-Baylor Graduate
Program in Healthcare Administration

Enclosures

ENVISION 2000 - A DELPHI STUDY
Preparing Nurse Executives for the Next Century

Thank you for your interest in this research project. Feedback results from the project thus far are provided for your information. As you recall seven groups of federal nurse executives are participating in the project; Army, Air Force, Navy, Veteran's Administration, Indian Health Service, Immigration and Naturalization Service, and the Bureau of Prisons.

Sample size		196
Undeliverable mail	7	
Requests for removal	2	
n used for research		187
Return		80
Return Rate		43%
Issues Identified		201
Frequency of Issues		395

Specific issues identified by the three groups of Delphi experts are listed below. The value to the right in parentheses is the frequency, or the number of times that a particular issue was mentioned by group members.

Last week I asked three senior nurse executives to sort the issues into the categories shown here. Please take a few minutes to scan through the following lists before you complete the questionnaire at Enclosure 2. Afterwards, complete the questionnaire and return it as soon as possible in the envelope provided.

48 LEADERSHIP ISSUES

TOTAL ISSUES IDENTIFIED: 48
FREQUENCY OF ISSUES: 94

Program evaluation (1)	Communication (2)	Defining the nurse role (10)
Equal representation (1)	Leadership development (2)	Stress management (2)
Orchestrating change (1)	Nursing image (1)	Management of contracts (1)
Paradigm shifts (2)	Decentralized mgt (2)	Staff moral/incentives (2)
Predicting the unpredictable (1)		
Increased responsibilities on the Executive Staff (1)	Coping with the changing environment (6)	Coping with nurse role changes (6)
Integrating TQM, CQI principles (5)	Marketing the nurse profession (1)	Strategic planning and mgt of change (5)
Power struggles in the leadership (1)	Conflict between medical/ nursing professionals (1)	One professional nursing organization to set standards (1)
Management of shrinking resources (1)	Trust, equity, vision and commitment (1)	Developing subordinates for executive positions (2)

Advanced patient education programs (1)

Increased scope of practice for nurses (2)

Management of a changing workforce (4)

Nurses as advocates for patients (1)

Maintaining a caring focus (1)

Bringing nursing back to nurses (1)

Nurses as board members(1)

Coping w/organizational structures (2)

Maintaining nursing identity(1)

Increase in LPNs, decrease in RNs (1)

Ability to meet demographical changes (1)

Nursing svcs managed as a business (3)

Increasing autonomy in nursing (1)

Waning of political power (2)

Re-engineer organizational Structure (1)

Organizational improvement (1)

Management of patient resources (1)

Nurse administrators v. general administrators (2)

Using techs rather than RNs (2)

Cross functional cooperation (1)

RN & interdisciplinary collaboration (3)

Control of Dept. of Nursing (1)

Organizational change (1)

26 MANAGED CARE ISSUES

TOTAL ISSUES IDENTIFIED: 26
FREQUENCY OF ISSUES: 63

Managed Care (13)
HMOs (3)
Homecare (7)
Competition (1)
Wellness programs (2)
Outpatient care (3)
Advanced patient education programs (1)
Case management (3)
Contracting (3)
Preventive Medicine (1)
Outreach programs (1)
UM/RM (3)
Ambulatory Care (1)
Costing Services (1)
Subacute care (1)
Critical pathways (4)
Health promotion (1)

Mgt in the continuum of care (2)

Downsizing medical beds/ Bed Mgt (2)

Management of Contracts (2)

Moving from acute to ambulatory settings (2)

Integrated Healthcare Delivery Systems (2)

Skilled nursing facilities (1)

Primary care providers (1)

Legal aspects of managed care (1)

New organizational models (1)

22 BUSINESS RELATED ISSUES

TOTAL ISSUES IDENTIFIED: 22
FREQUENCY OF ISSUES: 51

Cost-containment (5)	Budgetary constraints (5)	Vendor Contracts (4)
Cost controls (2)	Medical insurance (1)	Management of budget (6)
Increased fixed costs (1)	Finance and budgeting (3)	Third party reimbursement (2)
Fiscal responsibilities (3)	Capitation (2)	Resource management (2)
Cost accountability (2)		
Revised reimbursement methods (1)	Management of financial resources (2)	Decreases in financial resources (1)
Nurses as reimbursable providers (1)	Establishing financial contracts (1)	Business case/ planning analysis (2)
Marketing services (2)	Marketing strategies (2)	Marketing operations (1)

20 STAFFING, PERSONNEL, AND PRODUCTIVITY RELATED ISSUES

TOTAL ISSUES IDENTIFIED: 20
FREQUENCY OF ISSUES: 51

Nurse providers as Primary Care Providers (3)	Retention and recruitment (6)	Managing a contracted Staff (1)
Increased use of para-professional aides (6)	Impact of rightsizing/ downsizing (6)	Caring for more patients with less (1)
Correct use of personnel resources (3)	Nurses as hospital educators (1)	Keeping skilled nurses in clinical practice (5)
Managing diversity in the work place (3)	Compensation appro-priate w/ Ed level (1)	Human resource mgt (4) Personnel management (1)
Measuring efficiency (1) Nursing support (1) Employee satisfaction (1)	Creative staffing (4) Personnel shortages(1) Employee burnout (1)	Nurse-patient ratios (1)

17 HEALTHCARE TREND AND REFORM ISSUES

TOTAL ISSUES IDENTIFIED: 17
FREQUENCY OF ISSUES: 28

Shift to Home healthcare (1) Healthcare Reform (5) Same day surgery (1)	Anticipating Trends (1) Aging America (5)	Rapid Changes (1) Joint Ventures (1)
Political impact of health reform on nursing (1)	Regulatory requirements (2)	Move for federal HC facilities (2)

Stabilization in a shrinking HC system (1)

Home based med-surg nursing care (1)

Childcare centers in the workplace (1)

Public Health (2)
Public Health Nursing (1)

Managing community nurses (1)

Health maintenance services (1)

16 QUALITY AND RISK MANAGEMENT ISSUES

TOTAL ISSUES IDENTIFIED: 16
FREQUENCY OF ISSUES: 28

CQI (4)
Maintain Stds (1)
TQM (3)
Quality Assurance (2)
Quality and costs (1)

Defining Outcomes (2)
Customer Satisfaction (2)
Stds of performance/practice (2)
Joint Commission Standards (2)
Infectious disease control (1)

Quality of care (1)
Patient focus (1)
Performance improvements (2)
Multi-disciplinary protocols (2)
Nurse peer review (1)

Organizational Accreditation
JCAHO compliance (1)

15 TECHNOLOGY ISSUES

TOTAL ISSUES IDENTIFIED: 15
FREQUENCY OF ISSUES: 35

Information mgt (4)
Technology (1)
Telecommunication (1)

Equipment technology (3)
Information Super Highway (3)
Computing skills (4)

Internet (2)
Telemedicine (1)

Coping with rapid technological change (7)

Information explosion (1)

Nursing decision spt systems (3)

Management of data transfers (2)

Bedside computing (1)

Managing technology (1)

Managing information systems (1)

13 ETHICAL ISSUES

TOTAL ISSUES IDENTIFIED: 13
FREQUENCY OF ISSUES: 13

Civil rights violations (1)
Right to die (1)
Ethics (1)

Abortion (1)
Right to life (1)
Assisted suicide (1)

Healthcare rationing (1)
Euthanasia (1)
Equitable access (1)

Refusal to participate in an aspect of Pt care (1)

Reproductive alternatives (1)

Patient responsibilities (1)
Patient Rights (1)

12 LICENSURE AND HIGHER EDUCATION ISSUES

TOTAL ISSUES IDENTIFIED: 12
FREQUENCY OF ISSUES: 18

Licensure (1)	Nursing research (2)	Shortage of lic. Personnel (1)
Increase clinical knowledge for new BSNs (1)	Ambiguity in RN preparation (1)	Professional knowledge (2)
Increased educational requirements for RNs (2)	Nurse coalition building (2)	Executive level training for nurses (2)
Requirements for advanced degrees (1)	Dollars for educational programs (1)	Competency & professionalism (2)

12 FEDERAL NURSING SPECIFIC ISSUES

TOTAL ISSUES IDENTIFIED: 12
FREQUENCY OF ISSUES: 14

Increased educational requirements for RNs (1)	Standardization between federal organizations (1)	Sharing of federal personnel resources (1)
TRICARE (3)	Medical department downsizing (1)	Reengineering medical depts. (1)
Nursing ldr'ship within the DoD (1)	Military personnel management (1)	Readiness / deployment (1)
DOD healthcare reform (1)	Sharing of federal human resources (1)	Primary care models in DoD (1)

ENVISION 2000

A Delphi Research Study for Nurse Executives' Issues of Concern for the Next Century

and the skills, knowledge, and abilities that
future nursing executives will need to deal
with those particular issues

A local panel of senior executive nurses assisted in grouping the issues from the first round of the Delhi into the domains or categories listed below. On the following pages, domain issues are shown together with the type and number of respondents that listed any particular issue (the number of respondents are given in parentheses to the right of the issue). Please rate the RELATIVE IMPORTANCE of all of the skills, knowledge, and abilities (SKAs) using the 7-point scale provided to the right of the items.

YOUR RESPONSES

Issue Domains	Issues Identified	Frequency	SKA Item to be Rated
Leadership	48	94	32
Managed Care	26	63	16
Business	22	51	19
Staffing/Personnel	20	51	17
Technology	15	35	11
Healthcare trends	17	28	17
Quality and Risk Mgt	16	28	14
Licensure and Education	12	18	11
Federal Nursing Specific	12	14	11
Ethical	13	13	03
Total	201	395	151

When the data analyses are complete, we will be sending you a copy of the final results of the study. Again, thank you for you time and cooperation.

Envision 2000
Ronald A. Duperroir, MS
Kenn Finstuen, Ph.D
ATTN: WBAMC/MCHM-MCZ
5005 North Piedras Street
El Paso, Texas 79920-5001
Telephone: 1-915-569-1670
FAX 1-915-569-2729
DSN 979

ENVISION 2000

DELPHI RESPONDENT BACKGROUND INFORMATION

Please take a minute to complete the following items. Fill in the blanks or make a check mark as appropriate. Thank You.

AGE: _____ years **GENDER:** Female _____ Male ____

GRADE: _____ **TITLE/POSITION:**_____

FEDERAL AFFILIATION (check one):

_____ Army _____ Veteran's Administration _____ Indian Health Service
_____ Air Force _____ Navy _____ Bureau of Prisons
_____ Immigration and Naturalization Service
_____ Other:

FACILITY TYPE (check one):

Federal Nurses

___ Acute Care
___ Long-Term Care
___ Ambulatory Care
___ Other: _____

DOD Nurses

___ Medical Center (MEDCEN)
___ Medical Activity Department (MEDDAC)
___ Other :_____

FACILITY SIZE (number of beds): _____ of beds

GEOGRAPHICAL LOCATION (state):_____

EDUCATIONAL BACKGROUND (check all that apply):

Associate Degree (nursing)	_____
Bachelor's (nursing related)	_____
Bachelor's (not related to nursing)	_____
Master's (nursing related)	_____
Master's (health care administration MHA/MBA)	_____
Master's (non nursing, MHA, MBA related)	_____
Doctorate (nursing related)	_____
Doctorate (non-nursing related)	_____
Other:_____	_____

EXPERIENCE (mark those that apply):

Experience in health care settings	_____ years
Experience as a Head or Chief Nurse	_____ years
If a member of the ANA, how long?	_____ years
If certified by the ANA in administration, how long?	_____ years
If member of the American College of HC Executives (ACHE) how long?	_____ years
If a member ACHE what is your status (e.g. diplomate)?	_____

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

LEADERSHIP ISSUES

TOTAL ISSUES IDENTIFIED: 48
FREQUENCY OF ISSUES: 87

Program evaluation (1)
Equal representation (1)
Orchestrating change (1)
Paradigm shifts (2)
Predicting the unpredictable (1)

Communication (2)
Leadership development (2)
Nursing image (1)
Decentralized mgt (2)

Defining the nurse role (10)
Stress management (2)
Management of contracts (1)
Staff moral/incentives (2)

Increased responsibilities on the Executive Staff (1)

Coping with the changing environment (6)

Coping with nurse role changes (6)

Integrating TQM, CQI principles (5)

Marketing the nurse profession (1)

Strategic planning and mgt of change (5)

Power struggles in the leadership (1)

Conflict between medical/ nursing professionals (1)

One professional nursing organization to set standards (1)

Management of shrinking resources (1)

Trust, equity, vision and commitment (1)

Developing subordinates for executive positions (2)

Advanced patient education programs (1)

Maintaining nursing identity(1)

Management of patient resources (1)

Increased scope of practice for nurses (2)

Increase in LPNs, decrease in RNs (1)

Nurse administrators v. general administrators (2)

Management of a changing workforce (4)

Ability to meet demo-graphical changes (1)

Using techs rather than RNs (2)

Nurses as advocates for patients (1)

Nursing svcs managed as a business (3)

Cross functional cooperation (1)

Maintaining a caring focus (1)

Increasing autonomy in nursing (1)

RN & interdisciplinary collaboration (3)

Bringing nursing back to nurses (1)

Waning of political power (2)

Control of Dept. of Nursing (1)

Nurses as board members(1)

Re-engineer organizational Structure (1)

Organizational change (1)

Coping w/organizational structures (2)

Organizational improvement (1)

	RATING Unimportant to Extremely Important
1. Experience in conflict resolution, interpersonal relationships and TQM concepts	1 2 3 4 5 6 7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

2. Ability to interpret state and federal regulations accurately	1	2	3	4	5	6	7
3. Ability to communicate through speaking, writing, and expressing oneself analytically	1	2	3	4	5	6	7
4. Knowledge obtained from advanced degrees (MSN, MHA, MBA, MPH, PhD)	1	2	3	4	5	6	7
5. Networking with multiple national, state, and local healthcare leaders	1	2	3	4	5	6	7
6. Knowledge in negotiation and contractual agreements	1	2	3	4	5	6	7
7. Ability to conduct and interpret community assessments	1	2	3	4	5	6	7
8. Knowledge in organizational behavior	1	2	3	4	5	6	7
9. Ability to change the organizational culture	1	2	3	4	5	6	7
10. Skilled in database planning, strategic planning, and re-engineering	1	2	3	4	5	6	7
11. Knowledge in/of change theory and how to manage and negotiate change	1	2	3	4	5	6	7
12. Possession of an advanced degree in hospital or business administration	1	2	3	4	5	6	7
13. Preparation by advanced clinical degree with ANA board certification	1	2	3	4	5	6	7
14. Understanding current nursing practice and multi-disciplinary approaches to managed care	1	2	3	4	5	6	7
15. Maintenance of CE relevant to disciplines served within the institution served	1	2	3	4	5	6	7
16. Ability to work and communicate with a variety of people of different cultural backgrounds	1	2	3	4	5	6	7
17. Nursing curriculum and program development	1	2	3	4	5	6	7
18. Knowledge of the physical assessment; ability to assess a persons physical and mental status.	1	2	3	4	5	6	7
19. Understanding of nursing administration and the direction of healthcare	1	2	3	4	5	6	7
20. Ability to analytically assess the environment	1	2	3	4	5	6	7
21. Knowledge of employee lifestyles, interpersonal skills	1	2	3	4	5	6	7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

22. Possession of motivational skills	1	2	3	4	5	6	7
23. Diplomacy, tact, patience, open mindedness ability to visualize	1	2	3	4	5	6	7
24. Professional knowledge of applicable regulatory agencies	1	2	3	4	5	6	7
25. Ability to analysis the healthcare market and structure nursing educational requirements appropriately	1	2	3	4	5	6	7
26. Computer information management skills	1	2	3	4	5	6	7
27. Ability to analyze quantitative and qualitative outcomes through automation	1	2	3	4	5	6	7
28. Taking care of your staff	1	2	3	4	5	6	7
29. Skills in effective and creative management of diminishing resources	1	2	3	4	5	6	7
30. Knowledge in job enrichment, design, utilization and enhancement	1	2	3	4	5	6	7
31. Knowledge in area of patient education; self care	1	2	3	4	5	6	7
32. Vision and organizational skill to revitalize or replace ANA as a body representing nurse's voices nationally and politically	1	2	3	4	5	6	7

MANAGED CARE ISSUES

TOTAL ISSUES IDENTIFIED: 26
FREQUENCY OF ISSUES: 63

Managed Care (13)	Case management (3)	Ambulatory Care (1)
HMOs (3)	Contracting (3)	Costing Services (1)
Homecare (7)	Preventive Medicine (1)	Subacute care (1)
Competition (1)	Outreach programs (1)	Critical pathways (4)
Wellness programs (2)	UM/RM (3)	Health promotion (1)
Outpatient care (3)		
Mgt in the continuum of care (2)	Moving from acute to ambulatory settings (2)	Primary care providers (1)
Downsizing medical beds/ Bed Mgt (2)	Integrated Healthcare Delivery Systems (2)	Legal aspects of managed care (1)

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

MANAGED CARE ISSUES (continued)

Management of Contracts (2)

Skilled nursing facilities (1)

New organizational models (1)

Advanced patient education programs (1)

	RATING Unimportant to Extremely Important						
1. Understand managed care products and have the ability to conduct a cost analysis	1	2	3	4	5	6	7
2. Knowledge in areas of Quality Assessment, Utilization Review, and Discharge Planning	1	2	3	4	5	6	7
3. Ability to negotiate and understand contractual agreements	1	2	3	4	5	6	7
4. Knowledge of Risk Management functions	1	2	3	4	5	6	7
5. Strategic thinking/planning combined with the ability to visualize	1	2	3	4	5	6	7
6. Knowledge in researching demographic and public health data	1	2	3	4	5	6	7
7. Ability to communicate effectively both verbally and in writing	1	2	3	4	5	6	7
8. Awareness of national trends in healthcare management	1	2	3	4	5	6	7
9. Ability to work credibly with multi-disciplinary leadership	1	2	3	4	5	6	7
10. Understand DRG reimbursements	1	2	3	4	5	6	7
11. Advanced degree in public health	1	2	3	4	5	6	7
12. Focus toward primary and secondary levels of healthcare intervention	1	2	3	4	5	6	7
13. Ability to integrate care from hospital, homecare, to hospice	1	2	3	4	5	6	7
14. Ability to assess the needs of the community	1	2	3	4	5	6	7
15. Knowledge in primary care skills and wellness programs	1	2	3	4	5	6	7
16. Knowledgeable in the development of critical pathways	1	2	3	4	5	6	7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

BUSINESS RELATED ISSUES

TOTAL ISSUES IDENTIFIED: 22
FREQUENCY OF ISSUES: 51

Cost-containment (5)	Budgetary constraints (5)	Vendor Contracts (4)
Cost controls (2)	Medical insurance (1)	Management of budget (6)
Increased fixed costs (1)	Finance and budgeting (3)	Third party reimbursement (2)
Fiscal responsibilities (3)	Capitation (2)	Resource management (2)
Cost accountability (2)		
Revised reimbursement methods (1)	Management of financial resources (2)	Decreases in financial resources (1)
Nurses as reimbursable providers (1)	Establishing financial contracts (1)	Business case/ planning analysis (2)
Marketing services (2)	Marketing strategies (2)	Marketing operations (1)

	RATING Unimportant to Extremely Important
1. Ability to effectively verbalize and write	1 2 3 4 5 6 7
2. Knowledge in the basic concepts of marketing	1 2 3 4 5 6 7
3. Skills to identify community needs as well as market the things you do well	1 2 3 4 5 6 7
4. Strategic thinking and the ability to forecast	1 2 3 4 5 6 7
5. Knowledge of health in local community; active in community activities	1 2 3 4 5 6 7
6. Understand managed care concepts and have the ability to access the clinical skills required	1 2 3 4 5 6 7
7. Knowledge in Case Management and Utilization Review	1 2 3 4 5 6 7
8. Ability to adapt while using quality concepts toward doing business better	1 2 3 4 5 6 7
9. Knowledge of the budgetary process and the allocation of resources	1 2 3 4 5 6 7
10. Understand Medicare, Medicaid and alternative reimbursement concepts	1 2 3 4 5 6 7
11. Knowledge of the nursing role in the billing process	1 2 3 4 5 6 7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

12. Ability to forecast, perform a cost analysis, and determine benefits	1 2 3 4 5 6 7
13. Knowledge in purchasing practices, negotiating, and laws pertaining to contracting	1 2 3 4 5 6 7
14. Ability to integrate health care delivery systems	1 2 3 4 5 6 7
15. Knowledgeable of financial planning and the principles of business	1 2 3 4 5 6 7
16. Skilled in measuring productivity and analyzing workloads	1 2 3 4 5 6 7
17. Knowledgeable of information resource management and computer applications	1 2 3 4 5 6 7
18. Understanding the difference between coordination of care and cost containment	1 2 3 4 5 6 7
19. Knowledge of your hospitals finance/cost accounting system	1 2 3 4 5 6 7

STAFFING, PERSONNEL, AND PRODUCTIVITY RELATED ISSUES

TOTAL ISSUES IDENTIFIED: 20
FREQUENCY OF ISSUES: 51

Nurse providers as Primary Care Providers (3)	Retention and recruitment (6)	Managing a contracted Staff (1)
Increased use of para-professional aides (6)	Impact of rightsizing/ downsizing (6)	Caring for more patients with less (1)
Correct use of personnel resources (3)	Nurses as hospital educators (1)	Keeping skilled nurses in clinical practice (5)
Managing diversity in the work place (3)	Compensation appro-priate w/ Ed level (1)	Human resource mgt (4) Personnel management (1)
Measuring efficiency (1) Nursing support (1) Employee satisfaction (1)	Creative staffing (4) Personnel shortages(1) Employee burnout (1)	Nurse-patient ratios (1)

	RATING Unimportant to Extremely Important
1. Ability to assist with the growth of nurses in primary care	1 2 3 4 5 6 7
2. Sensitivity to changing environment; ability to team build	1 2 3 4 5 6 7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

3. Knowledge in budgeting, forecasting, and negotiating	1 2 3 4 5 6 7
4. Knowledge in staff utilization and personnel contracting	1 2 3 4 5 6 7
5. Ability to forecast and communicate long term staffing requirements	1 2 3 4 5 6 7
6. Ability to impact on legislative decisions	1 2 3 4 5 6 7
7. Knowledge process analysis; in time and motion studies	1 2 3 4 5 6 7
8. Knowledge in the competencies of paraprofessionals	1 2 3 4 5 6 7
9. Creative thinking and the ability to measure productivity	1 2 3 4 5 6 7
10. Ability to see the organization in its entirety	1 2 3 4 5 6 7
11. Ability to recognize gaps between a nurse's education and the clinical skills required	1 2 3 4 5 6 7
12. Knowledge of civilian labor contracts with negotiation skills	1 2 3 4 5 6 7
13. Understand FTE calculations for estimating productivity levels	1 2 3 4 5 6 7
14. Knowledge of wellness and how to promote wellness in the work environment	1 2 3 4 5 6 7
15. Skilled in managing a diverse workforce and knowledgeable of cultural diversity	1 2 3 4 5 6 7
16. Knowledge and innovation in personnel resource allocation	1 2 3 4 5 6 7
17. Economic management of personnel assets	1 2 3 4 5 6 7

TECHNOLOGY ISSUES

TOTAL ISSUES IDENTIFIED: 15
FREQUENCY OF ISSUES: 35

Information mgt (4)	Equipment technology (3)	Internet (2)
Technology (1)	Information Super Highway (3)	Telemedicine (1)
Telecommunication (1)	Computing skills (4)	
Coping with rapid tech-nological change (7)	Information explosion (1)	Nursing decision spt systems (3)

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

TECHNOLOGY ISSUES (continued)

Management of data transfers (2)

Bedside computing (1)

Managing technology (1)

Managing information systems (1)

	RATING Unimportant to Extremely Important
1. Familiarity in computer literacy and skills	1 2 3 4 5 6 7
2. Knowledge in clinical equipment advancement	1 2 3 4 5 6 7
3. Familiarity with clinical settings and patient confidentiality	1 2 3 4 5 6 7
4. Ability to assess the need and evaluate the cost effectiveness of new technologies	1 2 3 4 5 6 7
5. Knowledge in negotiating contracts	1 2 3 4 5 6 7
6. Familiarity with the information super highway, E-mail, the Internet and world wide web	1 2 3 4 5 6 7
7. Knowledge in telecommunications; i.e. virtual reality, telemedicine, televideo-conferencing	1 2 3 4 5 6 7
8. Collaboration between the medical staff and nursing care to identify technological needs	1 2 3 4 5 6 7
9. Ability to speak about and understand the administrative support systems	1 2 3 4 5 6 7
10. Knowledge of the necessary sources required to stay informed of technological advances in related fields	1 2 3 4 5 6 7
11. Ability to estimate cost of providing new technology with projected returns in anticipated benefits	1 2 3 4 5 6 7

HEALTHCARE TREND AND REFORM ISSUES

TOTAL ISSUES IDENTIFIED: 17
FREQUENCY OF ISSUES: 28

Shift to Home healthcare (1)
Healthcare Reform (5)
Same day surgery (1)

Anticipating Trends (1)
Aging America (5)

Rapid Changes (1)
Joint Ventures (1)

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

HEALTHCARE TREND AND REFORM ISSUES (continued)

Political impact of health reform on nursing (1)	Regulatory requirements (2)	Move for federal HC facilities (2)
Stabilization in a shrinking HC system (1)	Home based med-surg nursing care (1)	Childcare centers in the workplace (1)
Public Health (2) Public Health Nursing (1)	Managing community nurses (1)	Health maintenance services (1)

	RATING Unimportant to Extremely Important						
1. Ability to prepare and interpret community assessments	1	2	3	4	5	6	7
2. Ability to perform health risk appraisals and to coordinate follow up medical treatment of abnormal conditions	1	2	3	4	5	6	7
3. Nursing schools to expand undergraduate curriculum to include primary and secondary prevention services	1	2	3	4	5	6	7
4. Ability to transfer hospital based clinical skills into a homecare environment	1	2	3	4	5	6	7
5. Involvement in community, political and professional organizations	1	2	3	4	5	6	7
6. Ability to communicate effectively; read, write and listen.	1	2	3	4	5	6	7
7. Knowledge in forecasting and statistical analysis	1	2	3	4	5	6	7
8. Knowledge in health planning with emphasis on the macro level	1	2	3	4	5	6	7
9. Influence of regulatory changes through membership in professional organizations	1	2	3	4	5	6	7
10. Ability to remain flexible and adapt to surroundings	1	2	3	4	5	6	7
11. Awareness of legislation and its implications	1	2	3	4	5	6	7
12. Knowledge of alternative medicine disciplines and how they can be integrated into patient care	1	2	3	4	5	6	7
13. Networking with nontraditional participants in HC	1	2	3	4	5	6	7
14. Knowledgeable in world healthcare issues	1	2	3	4	5	6	7
15. Knowledgeable of legislative action and how to propose legislative action	1	2	3	4	5	6	7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

16. Knowledgeable in ambulatory care delivery systems and models	1 2 3 4 5 6 7
17. Introduction to family and community dynamics included in BSN curriculum	1 2 3 4 5 6 7

QUALITY AND RISK MANAGEMENT ISSUES

TOTAL ISSUES IDENTIFIED: 16
FREQUENCY OF ISSUES: 28

CQI (4)	Defining Outcomes (2)	Quality of care (1)
Maintain Stds (1)	Customer Satisfaction (2)	Patient focus (1)
TQM (3)	Stds of performance/practice (2)	Performance improvements (2)
Quality Assurance (2)	Joint Commission Standards (2)	Multi-disciplinary protocols (2)
Quality and costs (1)	Infectious disease control (1)	Nurse peer review (1)

Organizational Accreditation
JCAHO compliance (1)

	RATING Unimportant to Extremely Important
1. Knowledge and ability to implement TQM and CQI concepts	1 2 3 4 5 6 7
2. Ability to collect, analyze and interpret data	1 2 3 4 5 6 7
3. QA, RM, and the national data bank	1 2 3 4 5 6 7
4. Exceeding traditional boundaries of nursing in the area of clinical outcome studies	1 2 3 4 5 6 7
5. Understand the use of statistical analysis	1 2 3 4 5 6 7
6. Knowing the key points of customer service and how methods used in the hospitality industry fit into healthcare	1 2 3 4 5 6 7
7. Able to reformulate hospital standards to emphasis function and performance (JCAHO)	1 2 3 4 5 6 7
8. Ability to define, establish, maintain, evaluate and improve standards	1 2 3 4 5 6 7
9. Knowledge of JCAHO and OSHA standards	1 2 3 4 5 6 7
10. Ability to conduct epidemiology studies of disease outbreaks	1 2 3 4 5 6 7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

11. Ability to document focal point of infection, develop a control plan and implement	1 2 3 4 5 6 7
12. Knowledge in TQM/CQI concepts, team building, and people skills	1 2 3 4 5 6 7
13. Defining and delivering "quality" outcomes within "resource constraints"	1 2 3 4 5 6 7
14. Knowledge of JCAHO trends and their implications on licensure requirements	1 2 3 4 5 6 7

LICENSURE AND EDUCATION ISSUES

TOTAL ISSUES IDENTIFIED: 12
FREQUENCY OF ISSUES: 18

Licensure (1)	Nursing research (2)	Shortage of lic. Personnel (1)
Increase clinical knowledge for new BSNs (1)	Ambiguity in RN preparation (1)	Professional knowledge (2)
Increased educational requirements for RNs (2)	Nurse coalition building (2)	Executive level training for nurses (2)
Requirements for advanced degrees (1)	Dollars for educational programs (1)	Competency & professionalism (2)

	RATING Unimportant to Extremely Important
1. Implement a clinical internship within BSN programs	1 2 3 4 5 6 7
2. Ability to separate Associate and Bachelor degree nurses through licensure	1 2 3 4 5 6 7
3. Knowledge of medical jurisprudence issues	1 2 3 4 5 6 7
4. Requirement of a BSN to conduct beside nursing	1 2 3 4 5 6 7
5. Ability to balance cost-containment measures and quality patient care	1 2 3 4 5 6 7
6. Knowledge of communication systems, hardware, software and program interfaces	1 2 3 4 5 6 7
7. Knowledge of professional licensure and required CEUs	1 2 3 4 5 6 7
8. Knowledge of strategic planning focusing on both the internal and external environment	1 2 3 4 5 6 7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

9. Leadership, managerial skills, and human relations	1 2 3 4 5 6 7
10. Development of inservice educational programs	1 2 3 4 5 6 7
11. Knowledge of staffing requirements with limited licensed staff	1 2 3 4 5 6 7

FEDERAL NURSING SPECIFIC ISSUES

TOTAL ISSUES IDENTIFIED: 12
FREQUENCY OF ISSUES: 14

Increased educational requirements for RNs (1)	Standardization between federal organizations (1)	Sharing of federal personnel resources (1)
TRICARE (3)	Medical department downsizing (1)	Reengineering medical depts. (1)
Nursing ldr'ship within the DoD (1)	Military personnel management (1)	Readiness / deployment (1)
DOD healthcare reform (1)	Sharing of federal human resources (1)	Primary care models in DoD (1)

	RATING Unimportant to Extremely Important
RANK ORDER THE ISSUES YOU ARE FAMILIAR WITH:	
1. Accomplishment of higher education; BSN, MSN, MPH, PhD etc..	1 2 3 4 5 6 7
2. Fundamental knowledge of the medical structure of other federal organizations	1 2 3 4 5 6 7
3. Understanding of the TRICARE network and concept	1 2 3 4 5 6 7
4. Knowledge in areas of forecasting, negotiating, and contracting	1 2 3 4 5 6 7
5. General management skills pertaining to rightsizing and downsizing activities	1 2 3 4 5 6 7
6. Able to communicate and network effectively	1 2 3 4 5 6 7
7. Ability to balance management and clinical skills with military readiness and field protocols	1 2 3 4 5 6 7
8. Working knowledge of both officer and enlisted personnel opportunities	1 2 3 4 5 6 7

FOR THE ISSUES LISTED, PLEASE RATE ALL OF THE Skills, Knowledges and Abilities according to the importance that should be placed on them. Indicate your answers by circling the appropriate numbers.

9. Knowledge in catchment area needs assessments	1 2 3 4 5 6 7
10 Ability to conduct and assess a cost analysis	1 2 3 4 5 6 7
11. Standardized reporting/documenting processes	1 2 3 4 5 6 7

ETHICAL ISSUES

TOTAL ISSUES IDENTIFIED: 13
FREQUENCY OF ISSUES: 13

Civil rights violations (1)	Abortion (1)	Healthcare rationing (1)
Right to die (1)	Right to life (1)	Euthanasia (1)
Ethics (1)	Assisted suicide (1)	Equitable access (1)
Refusal to participate in an aspect of Pt care (1)	Reproductive alternatives (1)	Patient responsibilities (1) Patient Rights (1)

	RATING Unimportant to Extremely Important
1. Knowledge in the correct interpretation of JCAHO requirements	1 2 3 4 5 6 7
2. Understanding organizational policy and mechanisms as they pertain to ethical decisions	1 2 3 4 5 6 7
3. Understanding of ethical decision models	1 2 3 4 5 6 7

APPENDIX C

Round I (Follow Up - Delphi Mailing Package)

Forwarding Cover Letter
Envision 2000 - Fact Sheet
Round I Delphi Questionnaire

DEPARTMENT OF THE ARMY
WILLIAM BEAUMONT ARMY MEDICAL CENTER
EL PASO, TEXAS 79920-5001

February 13, 1995

REPLY TO
ATTENTION OF:

Administrative Resident

«Title» «FirstName» «LastName»
«Company»
«Address1»
«City», «State» «PostalCode»

Dear «Title» «LastName»:

A few weeks ago I mailed you a packet requesting your participation in a Delphi study that would identify the competencies required by Federal Nurse Executives in the future. I hope you received your Delphi questionnaire and decided to participate in an opportunity to provide ***your professional insight.*** There is every chance that your completed Delphi questionnaire is in the mail right now. If so, thank you. If not, will you please complete it and send now?

Remember, every completed questionnaire received makes a difference because it expresses ***your individual opinion*** toward improving nurse executive building skills.

Should you prefer to fax your response the number is (915) 569-2729 or DSN 979-2729. I am available to answer any questions at (915) 569-1670 or DSN 979-1670.

Sincerely yours,

Ronald A. Duperroir
Captain, Medical Service Corps
Project Officer

Enclosures

FACT SHEET

FEBRUARY 1995

1. *Envision 2000* will seek to identify the most critical issues, and the competencies associated with such issues, facing nurse executives to the turn of the century.

2. Federal nursing executives located in DoD Healthcare Region VII, the Southwest Health Service Support Area, both civilian and military, will be selected as participants of the study. These states include 1-Southwest Texas, 2-Arizona, 3-New Mexico, 4-Nevada, and 5-Southern California.

3. COL Graham, Chief, Department of Nursing (William Beaumont Army Medical Center) and COL Vandell, Chief, Clinical Services Branch, (Healthcare Region VII), will chair an expert panel and assist in identifying regional federal nurse executives as respondents.

4. The methodology to be employed during this research is known as the Delphi method. The Delphi, initially developed by the Rand Corporation, was designed to produce group consensus by soliciting and combining the opinions of a group of experts.

5. Over the course of approximately two months, each nurse executive will be asked to respond to two questionnaires. **The estimated total time of involvement will be thirty minutes per respondent.**

6. Each selected participant will be provided with the complete results of the research project.

7. Should you desire to be removed from the Delphi sample, simply line through the questionnaire and return it in the envelope provided.

8. Additional information is available from CPT Ronald A. Duperroir, 915-569-1670 (DSN 979-1670). Responses may be faxed to (915) 569-2729, DSN 979-2729 or mailed in the envelope provided during your initial notification.

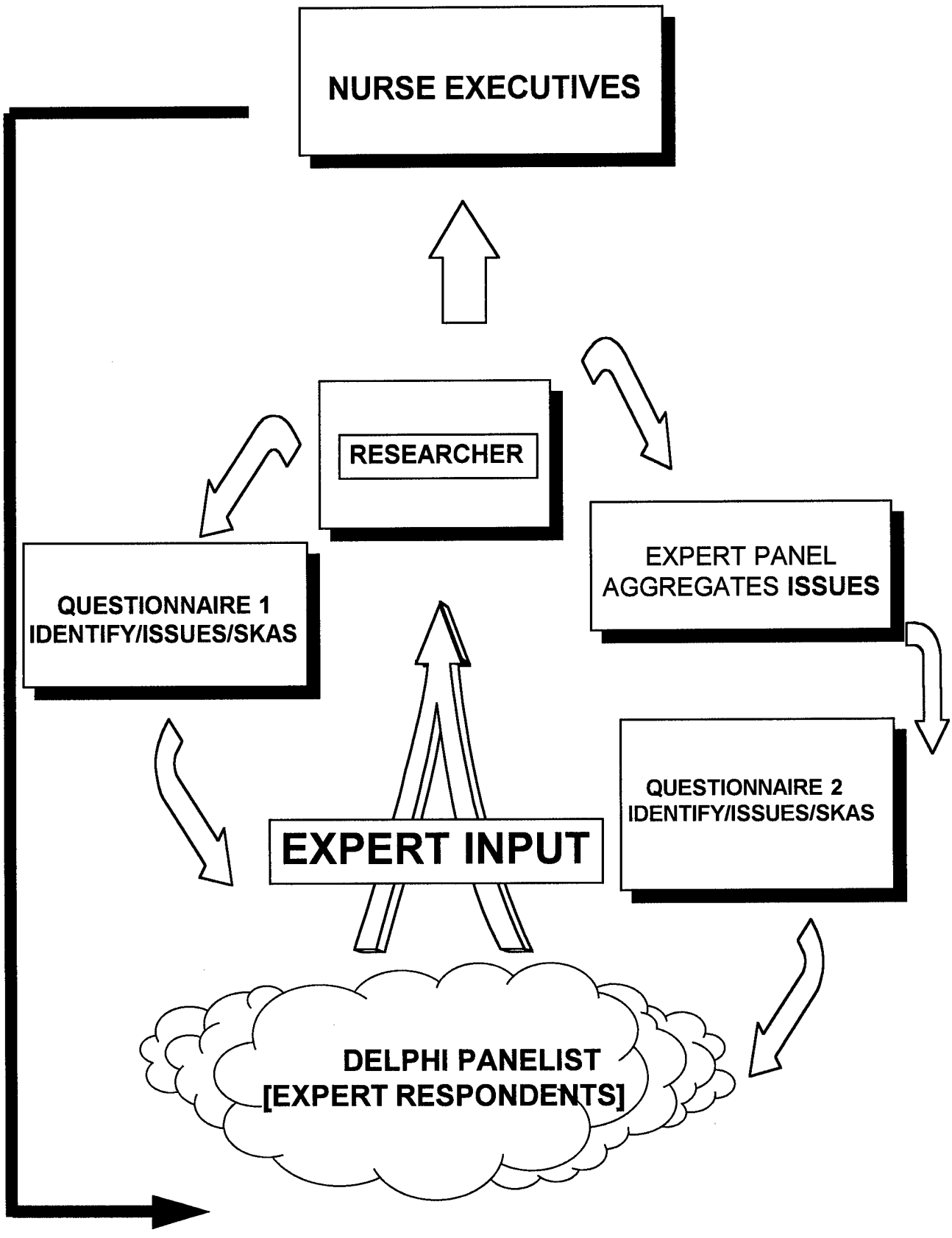

Figure 1. Theoretical Framework

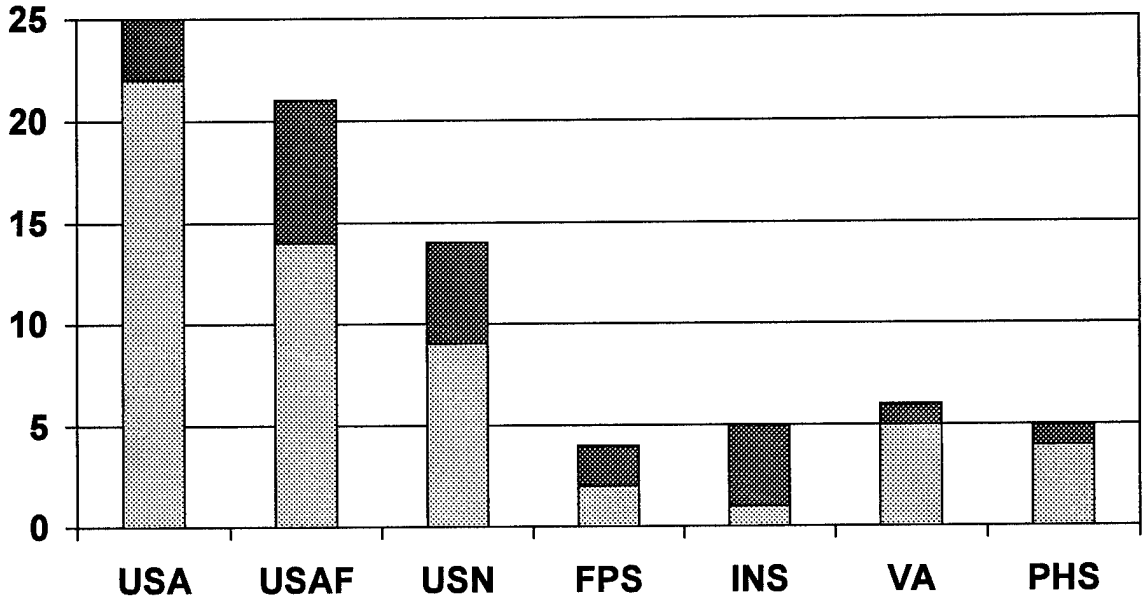

Figure 2. Response Rate using a Follow-up letter

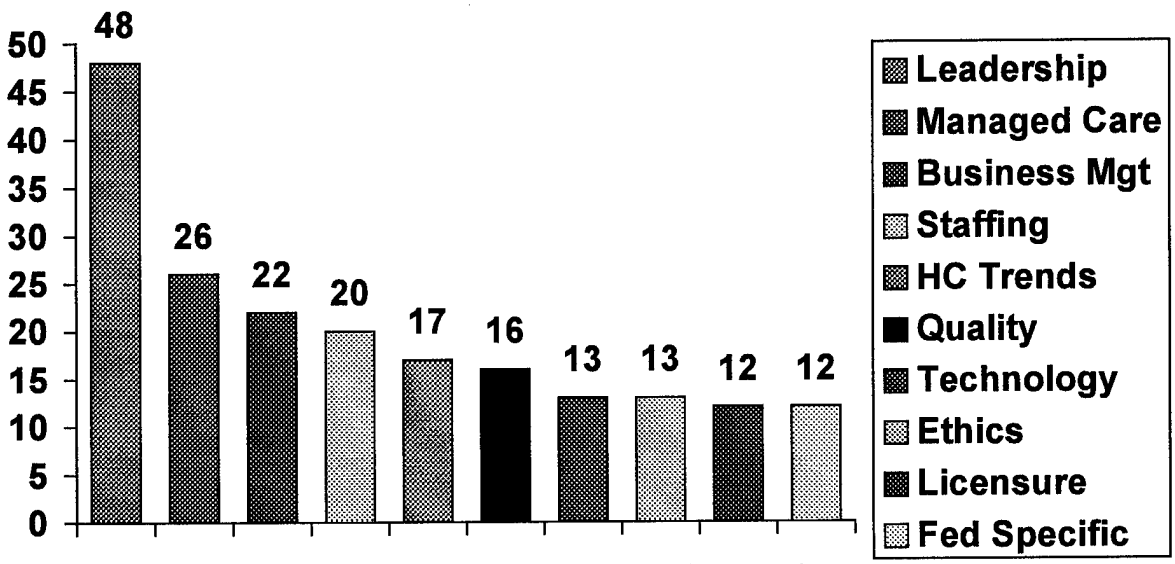

Figure 3. Issues Identified by Nurse Executives within Domains

TABLE 1

TOTAL ISSUES IDENTIFIED
BY NURSE EXECUTIVES THROUGH THE YEAR 2000

Domain	Issues Identified	Percent of Total
Leadership	48	.24
Managed Care	26	.13
Business Management	22	.11
Staffing/Personnel & Productivity	20	.10
Health Care Trends	17	.08
Qualty and Risk Management	16	.08
Technology	15	.07
Ethics	13	.07
Licensure & Education	12	.06
Federal Nusing Specific	12	.06
TOTAL:	201	1.0

TABLE 2

TOP ISSUES REPORTED BY FREQUENCY OF FUTURE IMPORTANCE BY NURSE EXECUTIVES

Issues within Domains	Reported Frequency
LEADERSHIP	
Nursing Roles	10
Nurse Role Changes	6
Changing Environment	6
Strategic Planning; Management of Change	5
MANAGED CARE	
Managed care	13
Homecare	7
Critical pathways	4
Case management	3
BUSINESS	
Budgetary constraints	11
Cost-containment	5
Fiscal responsibility	4
Finance and Budgeting decisions	3
STAFFING, PERSONNEL, AND PRODUCTIVITY	
Retention and recruitment	6
Use of Para-professional aides	6
Impact of rightsizing/downsizing	6
Maintaining nurse in clinical practice	5
TECHNOLOGY	
Management of Information	8
Technological change	7
Equipment technology	3
Nursing decision support systems	3
HEALTHCARE TRENDS AND REFORM	
Healthcare reform	5
Aging America	5
Public Health	2
Regulatory requirements	2
QUALITY AND RISK MANAGEMENT	
CQI/TQM	7
Customer satisfaction	2
Joint Commission Standards	2
LICENCSURE AND HIGHER EDUCATION	
Competency & Professionalism	4
Executive level training	2
Nursing research	2
FEDERAL NURSING SPECIFIC	
TRICARE	3
ETHICS	
Euthanasia	1

NOTE: For a complete listing of all issues see page 56, Appendix B

TABLE 3

RELIABILITY ANALYSIS USING CRONBACH'S COEFFICIENT ALPHA

Domain	Items	Cronbach's Coeffiicient Alpha
Business Management	17	.95
Staffing/Personnel & Productivity	17	.95
Leadership	32	.95
Qualty and Risk Management	14	.94
Managed Care	16	.93
Health Care Trends	17	.93
Technology	11	.92
Ethics	03	.90
Federal Nusing Specific	11	.85
Licensure & Education	11	.85

NOTE: n = 66 raters

TABLE 4

DESCRIPTIVE STATISTICS FOR HIGHEST RATED SKA WITHIN DOMAIN

Domain	SKA	Mean	Standard Deviation
Leadership	Diplomacy, tact, patience, open mindedness and the ability to visualize	6.54	.74
Managed Care	Ability to work credible with multi-disciplinary leadership	6.54	.80
Business	Ability to effectively verbalize and write	6.54	.94
Staffing, Personnel and Productivity	Sensitivity to changing environments, ability to team build	6.38	.81
Technology	Ability to collaborate between medical staff and Nursing toward identifying technological needs	6.15	.99
Health Care Trends and Reform	Ability to communicate; read, write, listen	6.50	.93
Quality and Risk Management	Knowledge in "people skills"; TQM/CQI, and Team Building	6.37	.90
Licensure and Higher Education	Managerial Skills and Human Relations	6.40	1.09
Federal Nursing Specific	Ability to Communicate and Network Effectively	6.41	.97
Ethics	Knowledge in organizational policy and mechanisms as they pertain to ethical decisions	5.95	1.35

NOTE: Important ratings for SKAs ranged from 1= Unimportant to 7= Extremely important

TABLE 5

DESCRIPTIVE STATISTICS OF THE TOP 10 HIGHEST RELATED JOB SKA REQUIREMENTS FOR THE NURSE EXECUTIVE THROUGH THE YEAR 2000

SKA	Mean	Standard Deviation	Domain
Diplomacy, tact, patience, open mindedness; ability to visualize	6.54	.74	Leadership
Ability to work credibly with multi-disciplinary leadership	6.54	.80	Managed Care
Ability to effectively verbalize and write	6.54	.96	Business
Knowledge in Case Management and Utilization Review	6.53	1.02	Managed Care
Ability to communicate effectively; read write, and listen	6.50	.93	Healthcare Trends and Reform
Able to communicate and network effectively	6.41	.97	Federal Nursing Specific
Knowledge of the physical assessment; ability to assess a persons physical and mental status	6.40	1.09	Leadership
Taking care of staff	6.39	.90	Leadership
Sensitivity to changing environment; ability to team build	6.38	.81	Staffing, Personnel and Productivity
Able to remain flexible and adapt to environment	6.37	.89	Healthcare Trends and Reform

NOTE: Important ratings for SKAs ranged from 1= Unimportant to 7= Extremely important

TABLE 6

DESCRIPTIVE STATISTICS OF THE BOTTOM 10 LOWEST RELATED JOB SKA REQUIREMENTS FOR THE NURSE EXECUTIVE THROUGH THE YEAR 2000

SKA	Mean	Standard Deviation	Domain
Advanced degree in public health	3.78	1.45	Managed Care
Preparation by advanced clinical degree with ANA board certification	4.30	1.49	Leadership
Requirement of a BSN to conduct bedside nursing	4.41	1.86	Licensure and Education
Knowledge in Nursing curriculum and program development	4.48	1.41	Leadership
Knowledge obtained through an advanced degree in hospital administration	4.54	1.38	Leadership
Ability to conduct Epidemiology studies of disease outbreaks	4.56	1.55	Quality and Risk Management
Vision and organizational skill to revitalize or replace ANA as a body representing nurses	4.73	1.30	Leadership
Fundamental knowledge of the medical structure of other federal organizations	4.82	1.25	Federal Nursing Specific
Knowledge in researching demographic and public health data	4.89	1.34	Managed Care
Knowledge in process analysis in time and motion studies	4.87	1.35	Staffing, Personnel, and Productivity

NOTE: Important ratings for SKAs ranged from 1= Unimportant to 7= Extremely important